

American Fern Journal

Vol. 7

OCTOBER-DECEMBER, 1917

No. 4

Fresh Pleasures from old Fields

H. E. RANSIER

A man past 60, country raised, went to the Adirondacks for a few weeks recently for his health. While killing time on his balsam bed, he picked the leaves of plants within his reach. Something about one kind which abounded, excited his curiosity and he asked the guide the name of the plant. The guide did not know, neither did any one he inquired of, so he brought home a few of the leaves and put it up to me, saying the leaves when rubbed to a powder in his hands, would produce violent sneezing. They were only common buttercup leaves, *Ranunculus acris*. It appears that none were in flower when he saw them. This is an extreme case, but illustrates how we all are apt to overlook the common things that surround us, be it plant, insect or animal life. The purpose of this article is to help its readers to become more intimately acquainted with the ferns that abound in their own section, and to show how they may get fresh pleasures from old fields, for what is true of the hart's tongue fern, may be equally so of some more common kind that may have not been noticed closely heretofore.

To be located in a section rich in ferns and yet be able to go afield but a couple of half days in a season has been my lot for many years. Under such circumstances there has been a tendency to follow well known and familiar paths. This in itself tends to a monotonous

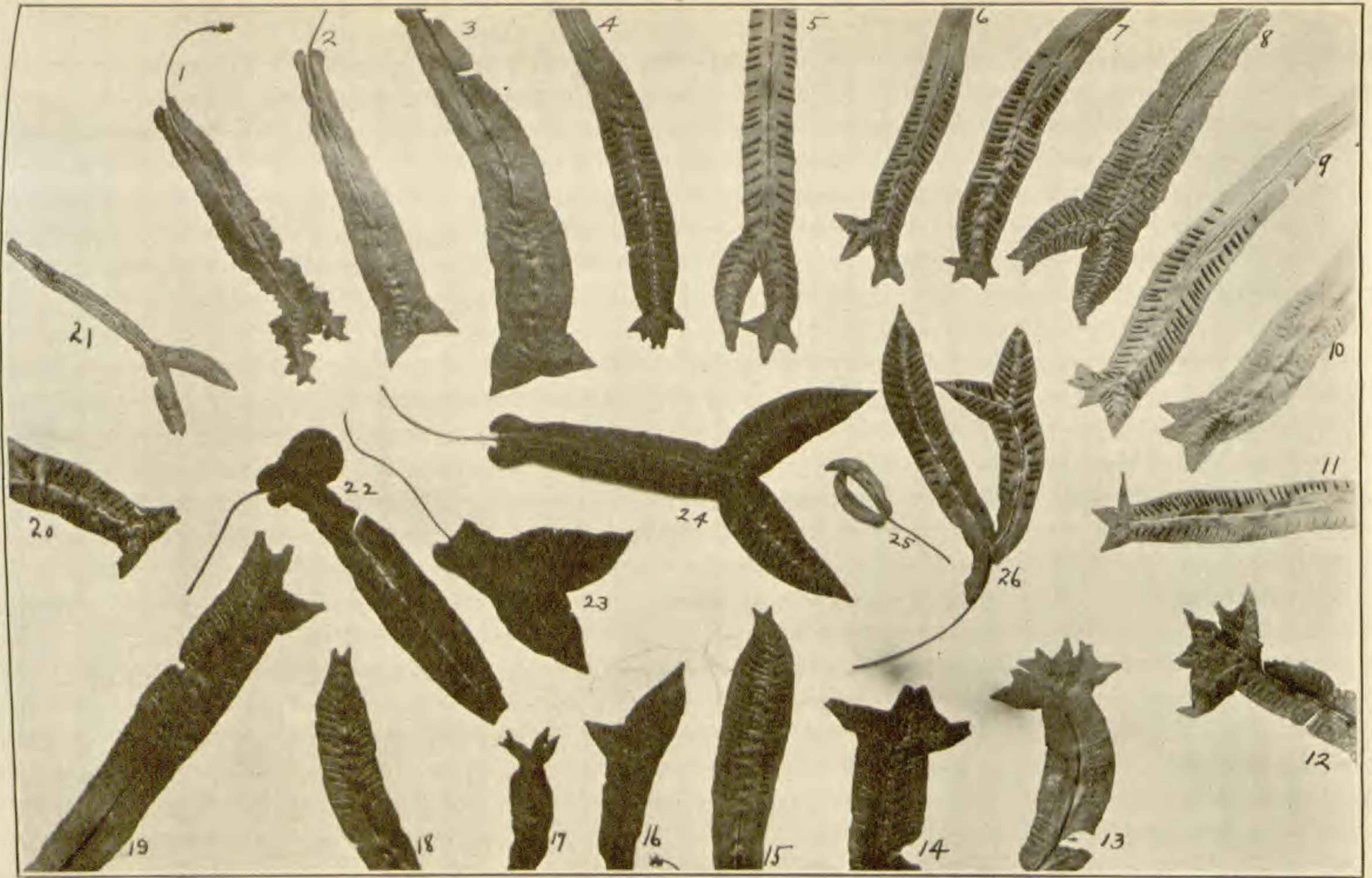
[No. 3 of the JOURNAL (7: 61-98, Plate 4) was issued Aug. 9, 1917.]

experience, but in my case, I have been saved from it by a habit of looking for unusual forms, a habit formed before I became chained so closely to business and now I feel spurred on to search for each season's fresh prizes very closely. A great many members of the Fern Society would be happy to spend a half day with the hart's tongues, but unless attention had been drawn to it, would only see the normal forms, as I did myself for a long time. After having become familiar with its limited range, there was but little to keep up one's interest in it, aside from collecting specimens, piloting others, or occasionally taking a plant for potting.

But *now*, I never fail to visit every station and scrutinize every frond possible. How great the pleasure when one stumbles upon a new form, and they rarely are twice alike! How excited one is to find fronds having three, four, and even up to eight tips!

On a recent trip, the day was ideal. A forty-five minute trolley ride, then a tramp through daisies, buttercups, alfalfa, mouse-ear, hawkweed and strawberries. Giant Trilliums filled the woods, green and scarlet fungi fringed the woodland; wintergreens abounded and bobolinks, meadow larks, blue jays and catbirds with a host of others were met with along the way. A spot where wild strawberries crowded out everything else stopped me. It was fairly scarlet with ripe clusters and I hailed a couple of passing hunters to share the feast with me. Soon the Scolopendriums have been reached; the air is damp and dank. Mosquitoes are there to welcome me. I fancied the first one I met hailed his fellows with "Hey, boys! Here he comes and it's his last trip this year! Go for him!" Perhaps my skin is tender. Perhaps they do not fear me on account of my size. Possibly they are simply hungry. Any way, they gave me every attention while I remained.

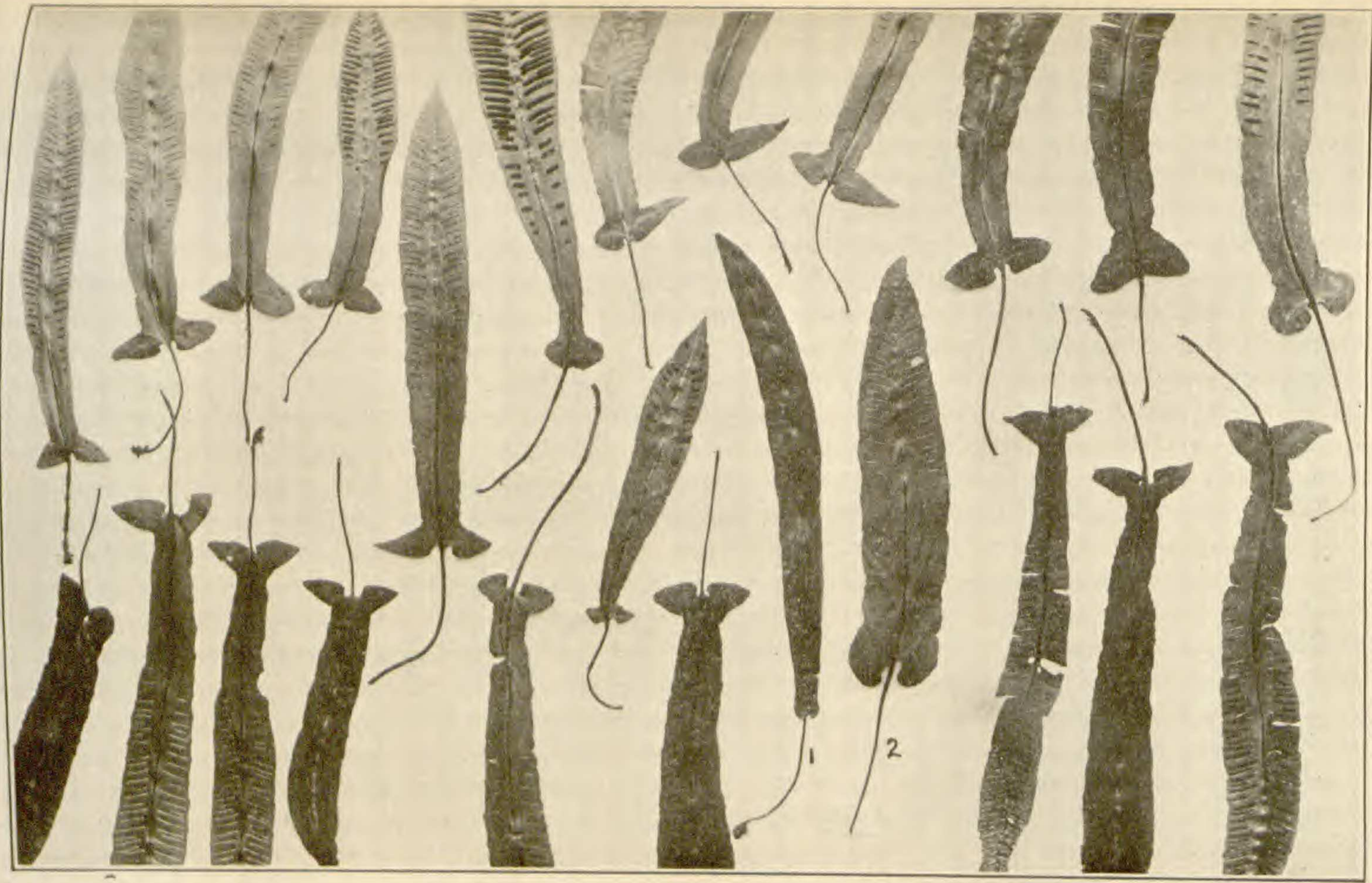
The first 20 plants inspected, yielded 6 forked forms. Within a 50-foot circle, 23 forked fronds were found.



FORKING TIPS OF THE HART'S-TONGUE FERN
(From a photograph by H. E. Ransier)

mostly short forkings. During the afternoon over 50 abnormal tips were discovered, about 30 of them slightly forked, 10 were with forks an inch or so long, 4 had divisions $1\frac{1}{2}$ inch deep, 4 about two inches long, 2 about three inches, 2 about four inches, and one was forked three times.

The finest specimen collected in 1917 bears five distinct tips, the central one about the size and position of a normal tip, with a double-tipped lobe on either side below it, making a cross-shaped ending of the frond, measuring $2\frac{1}{4}$ inches across, about $\frac{3}{4}$ of an inch below the centre tip. I am satisfied if I find half a dozen well-forked specimens on a single trip, such as those numbered 6, 8, 11, 23, 24 and 21 on plate 5. A great many similar to numbers 2, 15, 16 and 10 may be picked up almost any time. Specimens like 12, 13 and 26 are rarely found. No. 13 was found some years ago and unfortunately only the freak tip was preserved, as I was not able to carry the whole frond, which was an unusually fine one. The question arises, "Why do these fronds fork?" I am as much at a loss to explain today as I was when I first began collecting. Some have thought that it was because the fern possessed a surplus of vitality and food which favored it, but puny little starved fronds are found forking too and this seems to disprove the theory, as specimen No. 25 would indicate, which is about as completely forked as one can desire. It is not an uncommon thing to find more than one forked frond on a single root, and sometimes several are found together. Similar ones to Nos. 24 and 26 are frequently found under the others, as the stem seems unequal to the task of supporting a matured well-forked fertile frond. On my last trip I searched for forked fronds of the previous year's growth, as the old ones were still green and nearly perfect, though prostrate and covered with decaying leaves, and in no case did it



FORMS OF BASAL LOBES IN THE HART'S-TONGUE FERN
(From a photograph by H. E. Ransier)

appear that forking fronds had grown on the same plant two years in succession. Of course, such may have been collected the previous season, but it seemed strange that not one specimen should have been found to have forked in 1916 as well as in 1917.

It is more common to find a number of fronds having abnormal lobes at the base on a single plant, than to find several with abnormal tips on one specimen. No record has been kept of the place and date of collection of any of those used in illustrating this article, but it is safe to say that all were collected within six miles of Manlius and most of them within 3 miles. A great many better ones have been distributed to members than some used for the cuts. By oversight the plate showing tips does not include a normal one for comparison with the others, but the other plate happens to show several of the normal tips among the abnormal bases. It is well to notice that Figures 1 and 2 on plate 6 are of normal base lobes. Also that this plate happens to show fronds in various stages of spore development.

MANLIUS, N. Y.

Notes on American Ferns—XI¹

WILLIAM R. MAXON

CAMPTOSORUS FROM OKLAHOMA.—The walking fern, *Camptosorus rhizophyllus*, is known from Kansas, but seems not to have been recorded from the territory immediately southward. Excellent Oklahoma specimens have recently been distributed, however, by Prof. G. W. Stevens, being his Nos. 2003 and 2005, collected near Pawhuska, Osage County, in August, 1913.

THE ALTITUDINAL RANGE OF ASPLENIUM MONTANUM.—In his paper of nearly twenty-five years ago² recording

¹ Published by permission of the Secretary of the Smithsonian Institution.

² Bull. Torrey Club 20: 455-467. 1893.